

FACILITIES & COVERAGE CONTOURS

PROPOSED FM RADIO STATION

ILWACO, WASHINGTON

Channel 280 103.9 MHz

Class C3, Omnidirectional Antenna

HAAT = 100 Meters

TERRAIN AVG. = 44 Meters AMSL

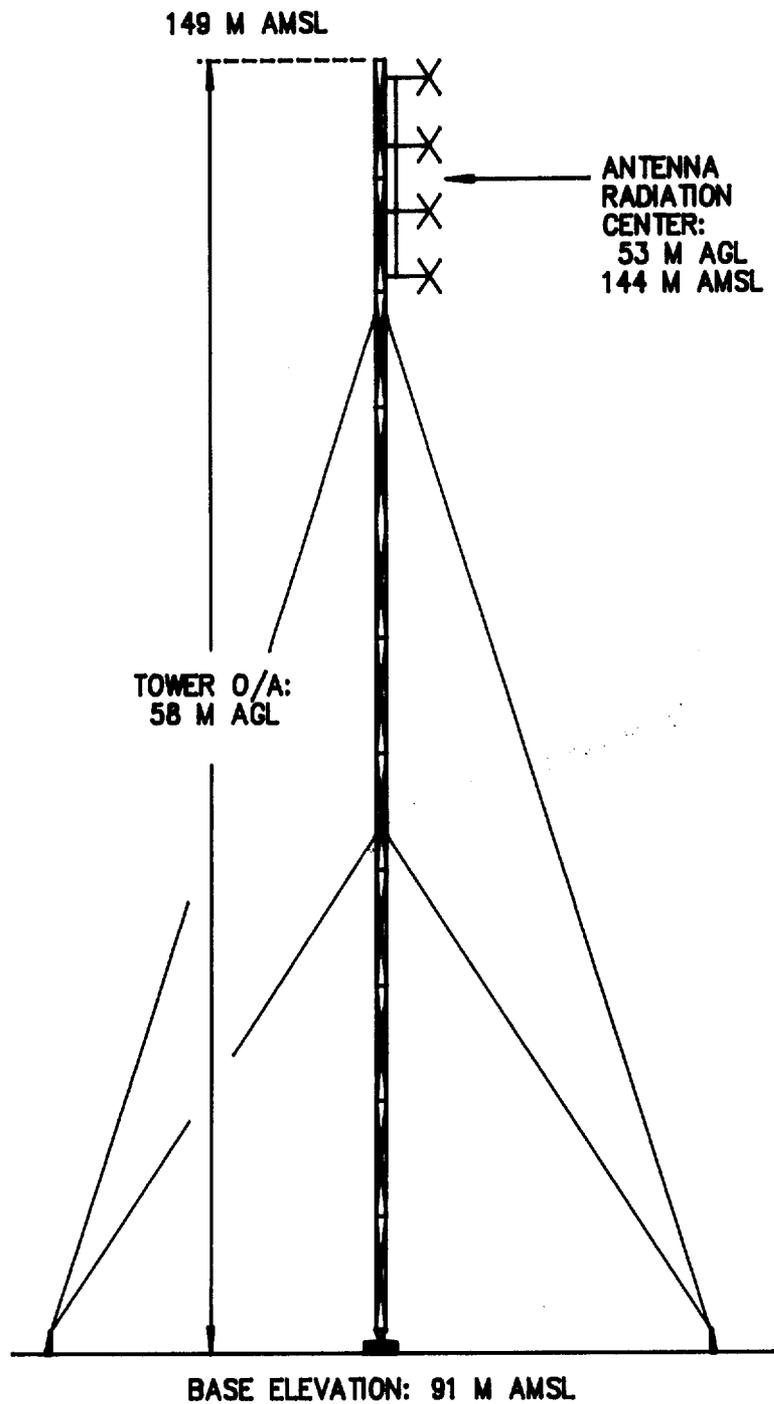
RAD. CENTER = 144 Meters AMSL

DISTANCE TO CONTOURS
F(50,50)

AZIMUTH (°True)	HAT (m)	HAAT (m)	ERP (kW)	ERP (dBk)	70 dBu (km)	60 dBu (km)
0	0	143	25.00	13.98	27.4	45.2
45	77	67	25.00	13.98	19.1	32.7
90†	155	-11	25.00	13.98	12.9	22.6
135	95	49	25.00	13.98	16.1	28.4
180	1	143	25.00	13.98	27.3	45.0
@225	17	127	25.00	13.98	25.7	42.9
@270	1	143	25.00	13.98	27.3	45.1
@315	3	140	25.00	13.98	27.1	44.8
*210	6	138	25.00	13.98	26.9	44.4

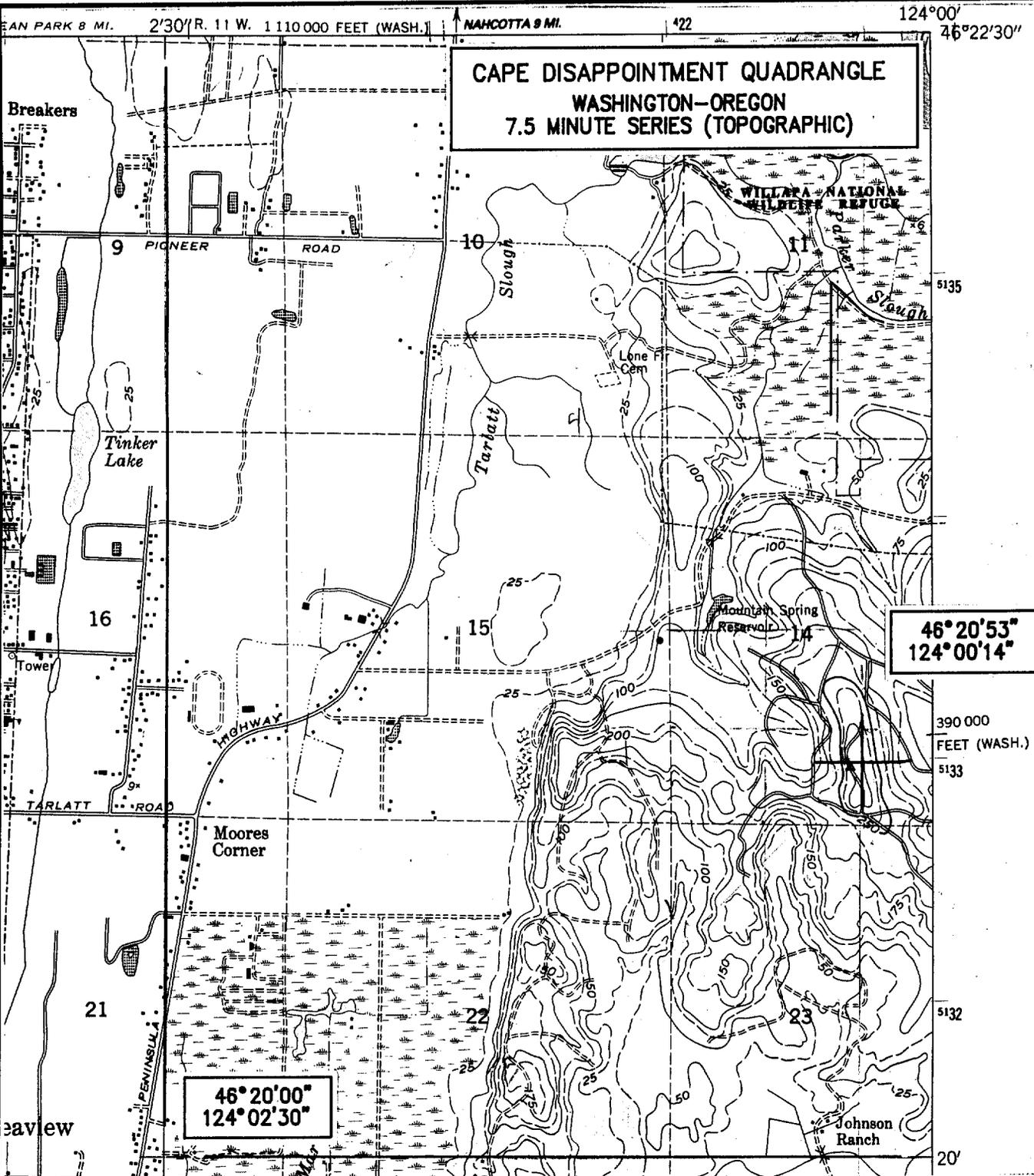
- @ - Radial partially over water 3-16 km, land area only averaged.
- † - Contour computed using 30 m per §73.313(e).
- * - Extra radial, not included in average.

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EXHIBIT VB-8
VERTICAL PLAN SKETCH
PROP(FM) ILWACO, WA 5/92



46°20'00"
124°02'30"

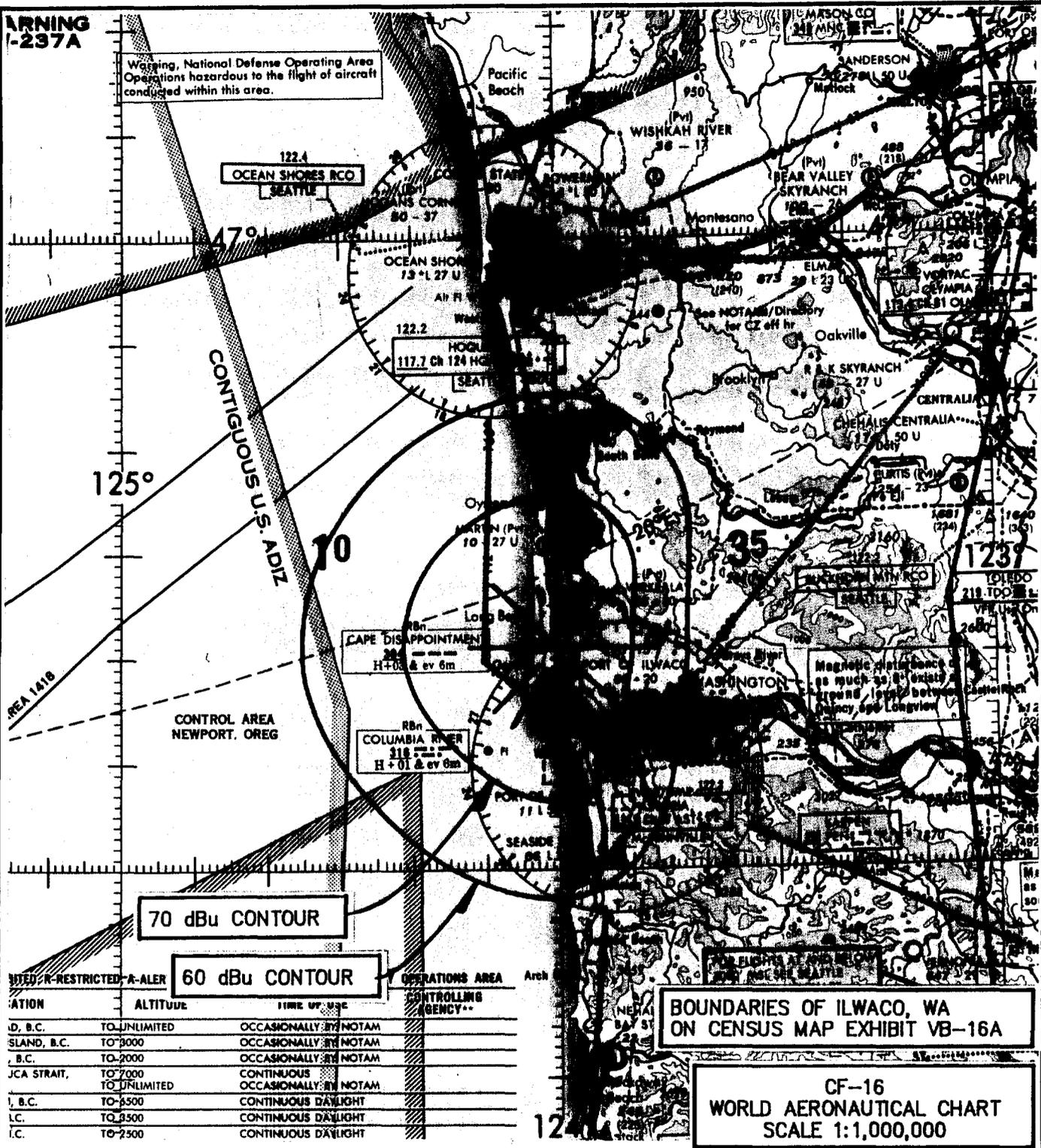
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EXHIBIT VB-15
TRANSMITTER SITE MAP

PROP(FM) ILWACO, WA 5/92

WARNING -237A

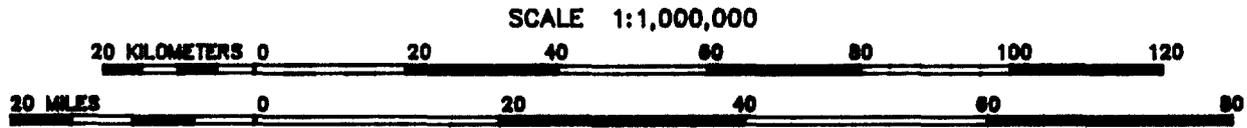
Warning, National Defense Operating Area
Operations hazardous to the flight of aircraft
conducted within this area.



CLASSIFICATION	ALTITUDE	TIME OF USE	CONTROLLING AGENCY
D, B.C.	TO UNLIMITED	OCCASIONALLY BY NOTAM	
SLAND, B.C.	TO 3000	OCCASIONALLY BY NOTAM	
B.C.	TO 2000	OCCASIONALLY BY NOTAM	
JCA STRAIT,	TO 7000	CONTINUOUS	
	TO UNLIMITED	OCCASIONALLY BY NOTAM	
I, B.C.	TO 3500	CONTINUOUS DAYLIGHT	
I.C.	TO 3500	CONTINUOUS DAYLIGHT	
I.C.	TO 2500	CONTINUOUS DAYLIGHT	

**BOUNDARIES OF ILWACO, WA
ON CENSUS MAP EXHIBIT VB-16A**

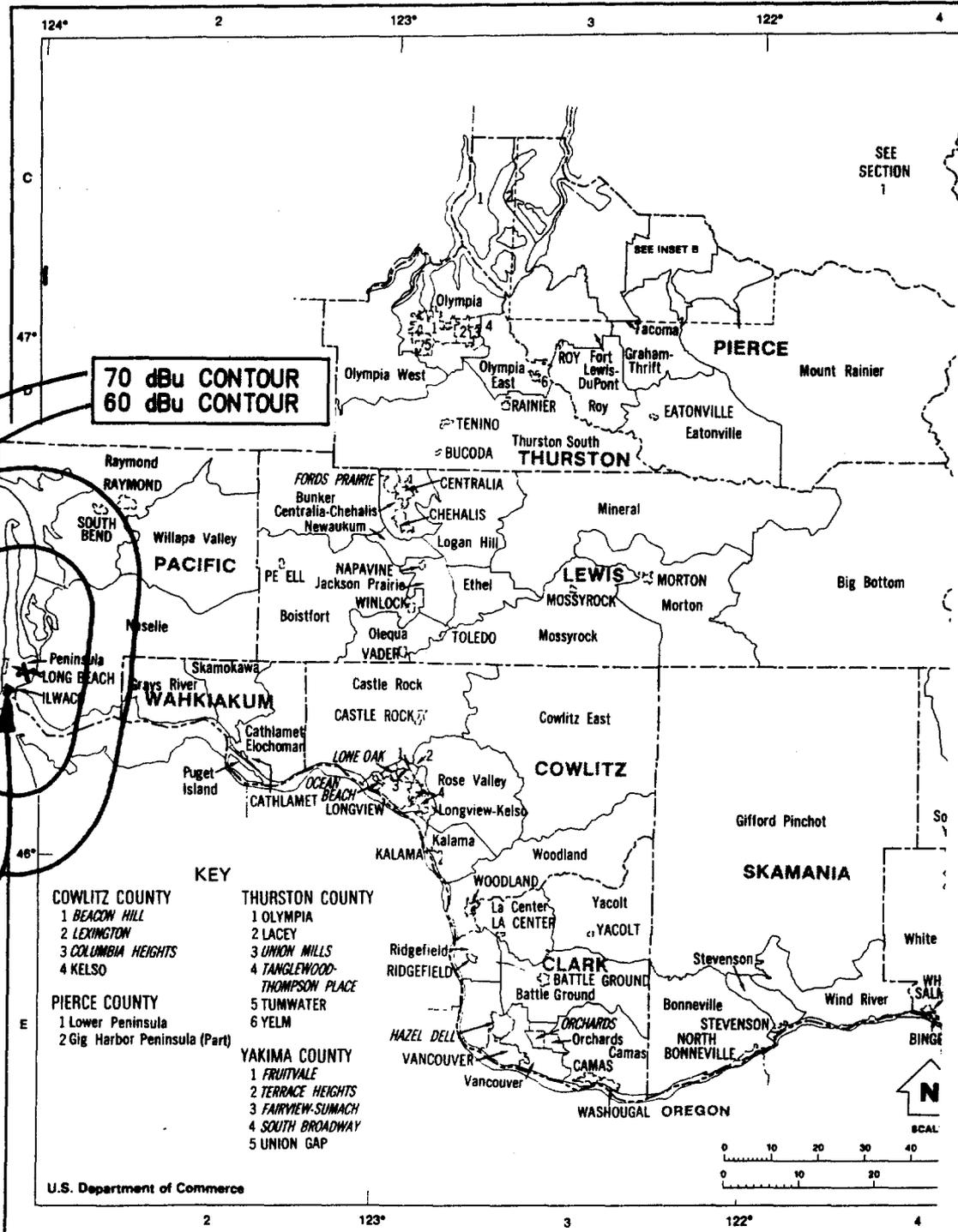
**CF-16
WORLD AERONAUTICAL CHART
SCALE 1:1,000,000**



**HATFIELD & DAWSON
CONSULTING ENGINEERS**

**EXHIBIT VB-16
PROPOSED COVERAGE CONTOURS
PROP(FM) ILWACO, WA 5/92**

NUMBER OF INHABITANTS



WASHINGTON 49-33

HATFIELD & DAWSON
CONSULTING ENGINEERS

EXHIBIT VB-16A
PARTIAL COVERAGE CONTOURS ON CENSUS MAP
PROP(FM) ILWACO, WA 5/92

Section V-B - FM BROADCAST ENGINEERING DATA (Page 2)

4. Does the application propose to correct previous site coordinates? ___ Yes X No
 If Yes, list old coordinates.

Latitude	Longitude
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5. Has the FAA been notified of the proposed construction? ___ Yes X No
 FAA NOTIFICATION NOT REQUIRED
 If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. Exhibit No. DNA

Date _____ Office where filed _____ DNA _____

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to the nearest point of the nearest runway.

Landing Area	Distance (km)	Bearing (degrees True)
(a) <u>PORT OF ILWACO</u>	<u>4.1</u>	<u>155°</u>
(b) _____	_____	_____

7. (a) Elevation: (to the nearest meter)

(1) of site above mean sea level; 91 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 58 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)] 149 meters

(b) Height of radiation center: (to the nearest meter) H = Horizontal; V = Vertical

(1) above ground 53 meters (H)
53 meters (V)

(2) above mean sea level [(a)(1) + (b)(1)] 144 meters (H)
144 meters (V)

(3) above average terrain 100 meters (H)
100 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers as well as location of FM radiator. Exhibit No. VB-8

9. Effective Radiated Power:

(a) ERP in the horizontal plane 25.00 kW (H*) 25.00 kW (V*)

(b) Is beam tilt proposed? ___ Yes X No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field. Exhibit No. DNA

_____ kW (H*) _____ kW (V*)

* Polarization

10. Is a directional antenna proposed? Yes No
 If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316 including plot(s) and tabulations of the relative field. Exhibit No.
DNA
11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.315(a) and (b)? Yes No
 If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and percentages of population and area that will not receive 3.16 mV/m service. Exhibit No.
DNA
12. Will the main studio be within the protected 3.16 mV/m field strength contour of this proposal? Yes No
 If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No.
DNA
13. (a) Does the proposed facility satisfy the requirements of 47 C.F.R. Section 73.207? Yes No
 (b) If the answer to (a) is No does 47 C.F.R. Section 73.213 apply? Yes No
 (c) If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of any previous waivers. Exhibit No.
DNA
 (d) If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No.
DNA
 (e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:
Exhibit No.
DNA
 - (1) Protected and interfering contours, in all directions (360°), for the proposed operation
 - (2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications, and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as the transmitter location.
 - (3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
 - (4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
 - (5) The official title(s) of the map(s) used in the exhibit(s).
14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast (except citizens band or amateur) radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? Yes No
 If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. (See 47 C.F.R. Sections 73.315(b), 73.316(e) and 73.318.) Exhibit No.
ENG. RPT.

Section V-B - FM BROADCAST ENGINEERING DATA (Page 4)

15. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V. The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No.
VB-15

16. Attach as an Exhibit (name the source) a map which shows clearly, legibly and and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
VB-16, -16A

- (a) the proposed transmitter location, and the radials along which profile graphs have been prepared;
- (b) the 3.16 mV/m and 1.0 mV/m predicted contours; and
- (c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 4836 sq. km.

Population *38,285
*1990 DATA

18. For an application involving an auxiliary facility only, attach as an Exhibit a map (Sectional Aeronautical Chart or equivalent) that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
DNA

- (a) the proposed auxiliary 1 mV/m contour; and
- (b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

19. Terrain and coverage data (to be calculated in accordance with 47 C.F.R. Section 73.313)

Source of terrain data: (check only one box below)

Linearly interpolated
30-second database
(Source: NGDC)

7.5 minute topographic map

Other (briefly summarize)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances	
		To 3.16 mV/m contour (kilometers)	To 1.0 mV/m contour (kilometers)
*			
0	SEE ENGINEERING REPORT		
45			
90			
135			
180			
225			
270			
315			

* Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

20. Environmental Statement (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? ___ Yes X No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

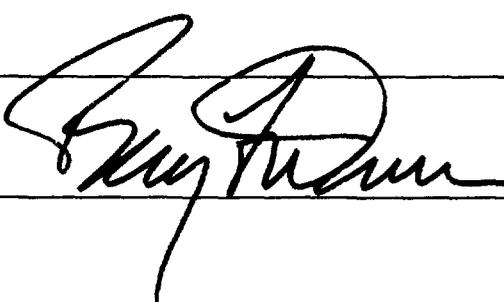
Exhibit No. DNA

If No, explain briefly why not.

THE STRUCTURE PROPOSED IN THIS APPLICATION IS NOT LOCATED IN AN ENVIRONMENTALLY SENSITIVE AREA AS DEFINED IN SECTION 1.1307 OF THE FCC RULES. SEE ENGINEERING STATEMENT FOR NIER CALCULATIONS.

CERTIFICATION

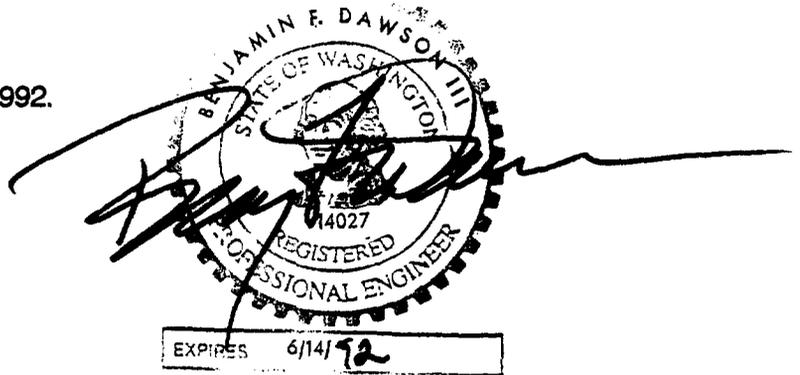
I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have read the foregoing and have found it to be accurate and true to the best of my knowledge and belief.

Name BENJAMIN F. DAWSON III, P.E.	Relationship to Applicant (e.g. Consulting Engineer) CONSULTING ENGINEER
Signature 	Address (Include ZIP Code) 4226 6TH AVE. N.W. SEATTLE, WA 98107
Date MAY 19, 1992	Telephone No. (Include Area Code) (206) 783-9151

6. Statement of Engineer

This Engineering Report, which is part of an application for construction permit for channel 280 C3, by Richard M. Schafbuch, have been prepared under my direct supervision. All representations contained herein are true to the best of my knowledge. I am an experienced radio engineer whose qualifications are a matter of record with the Federal Communications Commission. I am a partner in the firm of Hatfield and Dawson Consulting Engineers and am Registered as a Professional Engineer in the States of Washington and California.

Signed this 19th day of May, 1992.



Benjamin F. Dawson III, P.E.

Hatfield & Dawson Consulting Engineers